

**Amendments to the Sequence Listing**

Shown below are amendments made to the sequence listing. An amended sequence listing is attached to this preliminary amendment.

**SEQ ID NO:189**

gaagatgacatcataattgcaacaaagaatggaaaagtcagagggatgaacttgacagtttt  
tggtggcacggtaacagcctttcttggaattccctatgcacagccacctcttggtagacttc  
gattcaaaaagccacagtctctgaccaagtggctctgatatttggaatgccacaaaatatgca  
aattcttgctgtcagaacatagatcaaagttttccaggcttccatggatcagagatgtggaa  
cccaaacactgacctcagtgaagactgtttatatctaaatgtatggattccagcacctaaac  
caaaaaatgccactgtattgatatggattttatgggtgggtgttttcaaactggaacatcatct  
ttacatgtttatgatggcaagtttctggctcgggttgaaagagttattgtagtgtcaatgaa  
ctatagggtgggtgccctaggattcttagctttgccaggaaatcctgaggctccagggaaca  
tgggtttatattgatcaacagttggctcttcagtgggttcaaaaaatatagcagcctttgggt  
ggaaatcctaaaagtgtactctctttggagaaagtgcaggagcagcttcagttagcctgca  
tttgctttctcctggaagccattcattgttcaccagagccattctgcaaagtggttccttta  
atgctccttgggcggttaacatctctttatgaagctaggaacagaacgttgaacttagctaaa  
ttgactgggtgctctagagagaatgagactgaaataatcaagtgtcttagaaataaagatcc  
ccaagaaattcttctgaatgaagtctttgttggtcccctatgggacteegctctttgtcagtaa  
actttgggtccgaccgtg

(853-855)

gatgggtgattttctcactgacatgccagacatattacttgaacttggacaatttaaaaaaac  
ccagattttggtgggtgttaataaagatgaagggacagcttttttagtctatgggtgctcctg  
gcttcagcaaagataacaatagtatcataactagaaaagaatttcaggaaggtttaaaaaata  
ttttttccaggagtgagtgagtttggaaggaatccatcctttttcattacacagactgggt  
agatgatcagagacctgaaaactaccgtgaggccttgggtgatgttggtggggattataata  
ttatatgccctgccttgaggtcaccaagaagtctcagaatggggaaataatgcctttttc  
tactattttgaaacccgatcctccaaacttccgtggccagaatggatgggagtgatgcatgg  
ctatgaaattgaatttgtctttgggtttacctctggaaagaagagataattacacaaaagccg  
aggaaattttgagtagatccatagtgaacaggtgggcaaattttgcaaaatatgggaatcca  
aatgagactcagaacaatagcacaagctggcctgtcttcaaaagcactgaacaaaaatatct  
aaccttgaatacagagtcaacaagaataatgacgaaactacgtgctcaacaatgtcgattct  
ggacatcattttttccaaaagtcttggaatgacaggaaatattgatgaagcagaatgggag  
tggaagcaggattccatcgctggaacaattacatgatggactggaaaaatcaatttaacga  
ttacactagcaagaaagaagttgtgtgggtctc

**SEQ ID NO:190**

Glu	Asp	Asp	Ile	Ile	Ile	Ala	Thr	Lys	Asn	Gly	Lys	Val	Arg	Gly
Met	Asn	Leu	Thr	Val	Phe	Gly	Gly	Thr	Val	Thr	Ala	Phe	Leu	Gly
Ile	Pro	Tyr	Ala	Gln	Pro	Pro	Leu	Gly	Arg	Leu	Arg	Phe	Lys	Lys
Pro	Gln	Ser	Leu	Thr	Lys	Trp	Ser	Asp	Ile	Trp	Asn	Ala	Thr	Lys
Tyr	Ala	Asn	Ser	Cys	Cys	Gln	Asn	Ile	Asp	Gln	Ser	Phe	Pro	Gly
Phe	His	Gly	Ser	Glu	Met	Trp	Asn	Pro	Asn	Thr	Asp	Leu	Ser	Glu
Asp	Cys	Leu	Tyr	Leu	Asn	Val	Trp	Ile	Pro	Ala	Pro	Lys	Pro	Lys
Asn	Ala	Thr	Val	Leu	Ile	Trp	Ile	Tyr	Gly	Gly	Gly	Phe	Gln	Thr
Gly	Thr	Ser	Ser	Leu	His	Val	Tyr	Asp	Gly	Lys	Phe	Leu	Ala	Arg
Val	Glu	Arg	Val	Ile	Val	Val	Ser	Met	Asn	Tyr	Arg	Val	Gly	Ala
Leu	Gly	Phe	Leu	Ala	Leu	Pro	Gly	Asn	Pro	Glu	Ala	Pro	Gly	Asn
Met	Gly	Leu	Phe	Asp	Gln	Gln	Leu	Ala	Leu	Gln	Trp	Val	Gln	Lys

Asn Ile Ala Ala Phe Gly Gly Asn Pro Lys Ser Val Thr Leu Phe  
Gly Glu Ser Ala Gly Ala Ala Ser Val Ser Leu His Leu Leu Ser  
Pro Gly Ser His Ser Leu Phe Thr Arg Ala Ile Leu Gln Ser Gly  
Ser Phe Asn Ala Pro Trp Ala Val Thr Ser Leu Tyr Glu Ala Arg  
Asn Arg Thr Leu Asn Leu Ala Lys Leu Thr Gly Cys Ser Arg Glu  
Asn Glu Thr Glu Ile Ile Lys Cys Leu Arg Asn Lys Asp Pro Gln  
Glu Ile Leu Leu Asn Glu Val Phe Val Val Pro Tyr Gly Thr ~~Pro~~

~~285~~

Leu Leu Ser Val Asn Phe Gly Pro Thr Val Asp Gly Asp Phe Leu  
285

Thr Asp Met Pro Asp Ile Leu Leu Glu Leu Gly Gln Phe Lys Lys  
Thr Gln Ile Leu Val Gly Val Asn Lys Asp Glu Gly Thr Ala Phe  
Leu Val Tyr Gly Ala Pro Gly Phe Ser Lys Asp Asn Asn Ser Ile  
Ile Thr Arg Lys Glu Phe Gln Glu Gly Leu Lys Ile Phe Phe Pro  
Gly Val Ser Glu Phe Gly Lys Glu Ser Ile Leu Phe His Tyr Thr  
Asp Trp Val Asp Asp Gln Arg Pro Glu Asn Tyr Arg Glu Ala Leu  
Gly Asp Val Val Gly Asp Tyr Asn Ile Ile Cys Pro Ala Leu Glu  
Phe Thr Lys Lys Phe Ser Glu Trp Gly Asn Asn Ala Phe Phe Tyr  
Tyr Phe Glu His Arg Ser Ser Lys Leu Pro Trp Pro Glu Trp Met  
Gly Val Met His Gly Tyr Glu Ile Glu Phe Val Phe Gly Leu Pro  
Leu Glu Arg Arg Asp Asn Tyr Thr Lys Ala Glu Glu Ile Leu Ser  
Arg Ser Ile Val Lys Arg Trp Ala Asn Phe Ala Lys Tyr Gly Asn  
Pro Asn Glu Thr Gln Asn Asn Ser Thr Ser Trp Pro Val Phe Lys  
Ser Thr Glu Gln Lys Tyr Leu Thr Leu Asn Thr Glu Ser Thr Arg  
Ile Met Thr Lys Leu Arg Ala Gln Gln Cys Arg Phe Trp Thr Ser  
Phe Phe Pro Lys Val Leu Glu Met Thr Gly Asn Ile Asp Glu Ala  
Glu Trp Glu Trp Lys Ala Gly Phe His Arg Trp Asn Asn Tyr Met  
Met Asp Trp Lys Asn Gln Phe Asn Asp Tyr Thr Ser Lys Lys Glu  
Ser Cys Val Gly Leu

~~SEQ ID NO:199~~  
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~~SEQ ID NO:200~~  
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~~SEQ ID NO:201~~ SEQ ID NO:199

gaggtgcagctggtgcagctctggagcagaggtgaaaaagccccggggagtcctctgaagatctc  
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acacatgccaccgtgccc aaagcttgaagatgacatcataattgcaacaaagaatggaaaa  
gtcagaggggatgaacttgacagtttttggtggcacggtaacagcctttcttggaattcccta  
tgcacagccacctcttggtagacttcgattcaaaaagccacagtctctgaccaagtgggtctg

atatttgggaatgccacaaaatatgcaaattcttggctgtcagaacatagatcaaagttttcca  
ggcttcttttgatcagagatgtggaacccaaacactgacctcagtgaagactgtttatatct  
aatgtatggattccagcacctaaacccaaaaaatgccactgtattgatatggatttatgggtg  
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tatcataactagaaaagaatttcaggaaggttataaaatattttttccaggagtgagtgagt  
ttggaaaggaatccatcctttttcattacacagactgggttagatgatcagagacctgaaaac  
taccgtgaggccttgggtgatgttgttggggattataatttcatatgccttgcttggagtt  
caccaagaagttctcagaatggggaaataatgcctttttctactattttgaacaccgatcct  
ccaaacttccgtggccagaatggatgggagtgatgcatggctatgaaattgaatttgccttt  
ggtttacctctggaaagaagagataattacacaaaagccgaggaaattttgagtagatccat  
agtgaacgggtgggcaaattttgcaaaatatgggaatccaaatgagactcagaacaatagca  
caagctggcctgtcttcaaaagcactgaacaaaaatatctaacttgaatacagagtgcaaca  
agaataatgacgaaactacgtgctcaacaatgtcgattcttgacatcattttttccaaaagt  
ctga

~~SEQ ID NO:202~~ SEQ ID NO:200

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly  
Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Arg Thr Phe Thr  
Ser Tyr Asn Met His Trp Val Arg Gln Met Pro Gly Lys Gly Leu  
Glu Trp Met Gly Ala Ile Tyr Pro Leu Thr Gly Asp Thr Ser Tyr  
Asn Gln Lys Ser Lys Leu Gln Val Thr Ile Ser Ala Asp Lys Ser  
Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp  
Thr Ala Met Tyr Tyr Cys Ala Arg Ser Thr Tyr Val Gly Gly Asp  
Trp Gln Phe Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser  
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser  
Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val  
Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly  
Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser  
Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser  
Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro  
Ser Asn Thr Lys Val Asp Lys Lys Ala Glu Pro Lys Ser Cys Asp  
Lys Thr His Thr Cys Pro Pro Cys Pro Lys Leu Glu Asp Asp Ile  
Ile Ile Ala Thr Lys Asn Gly Lys Val Arg Gly Met Asn Leu Thr  
Val Phe Gly Gly Thr Val Thr Ala Phe Leu Gly Ile Pro Tyr Ala  
Gln Pro Pro Leu Gly Arg Leu Arg Phe Lys Lys Pro Gln Ser Leu  
Thr Lys Trp Ser Asp Ile Trp Asn Ala Thr Lys Tyr Ala Asn Ser  
Cys Cys Gln Asn Ile Asp Gln Ser Phe Pro Gly Phe Phe Gly Ser  
Glu Met Trp Asn Pro Asn Thr Asp Leu Ser Glu Asp Cys Leu Tyr  
Leu Asn Val Trp Ile Pro Ala Pro Lys Pro Lys Asn Ala Thr Val

Leu Ile Trp Ile Tyr Gly Gly Gly Phe Gln Thr Gly Thr Ser Ser  
Leu His Val Tyr Asp Gly Lys Phe Leu Ala Arg Val Glu Arg Val  
Ile Val Val Ser Met Asn Tyr Arg Val Gly Ala Leu Gly Phe Leu  
Ala Leu Pro Gly Asn Pro Glu Ala Pro Gly Asn Met Gly Leu Phe  
Asp Gln Gln Leu Ala Leu Gln Trp Val Gln Lys Asn Ile Ala Ala  
Phe Gly Gly Asn Pro Lys Ser Val Thr Leu Phe Gly Glu Ser Ala  
Gly Ala Ala Ser Val Ser Leu His Leu Leu Ser Pro Gly Ser His  
Ser Leu Phe Thr Arg Ala Ile Leu Gln Ser Gly Ser Ala Asn Ala  
Pro Trp Ala Val Thr Ser Leu Tyr Glu Ala Arg Asn Arg Thr Leu  
Asn Leu Ala Lys Leu Thr Gly Cys Ser Arg Glu Asn Glu Thr Glu  
Ile Ile Lys Cys Leu Arg Asn Lys Asp Pro Gln Glu Ile Leu Leu  
Asn Glu Ala Phe Val Val Pro Tyr Gly Thr Asn Leu Ser Val Asn  
Phe Gly Pro Thr Val Asp Gly Asp Phe Leu Thr Asp Met Pro Asp  
Ile Leu Leu Glu Leu Gly Gln Phe Lys Lys Thr Gln Ile Leu Val  
Gly Val Asn Lys Asp Glu Gly Thr Ala Phe Leu Ala Tyr Gly Ala  
Pro Gly Phe Ser Lys Asp Asn Asn Ser Ile Ile Thr Arg Lys Glu  
Phe Gln Glu Gly Leu Lys Ile Phe Phe Pro Gly Val Ser Glu Phe  
Gly Lys Glu Ser Ile Leu Phe His Tyr Thr Asp Trp Val Asp Asp  
Gln Arg Pro Glu Asn Tyr Arg Glu Ala Leu Gly Asp Val Val Gly  
Asp Tyr Asn Phe Ile Cys Pro Ala Leu Glu Phe Thr Lys Lys Phe  
Ser Glu Trp Gly Asn Asn Ala Phe Phe Tyr Tyr Phe Glu His Arg  
Ser Ser Lys Leu Pro Trp Pro Glu Trp Met Gly Val Met His Gly  
Tyr Glu Ile Glu Phe Val Phe Gly Leu Pro Leu Glu Arg Arg Asp  
Asn Tyr Thr Lys Ala Glu Glu Ile Leu Ser Arg Ser Ile Val Lys  
Arg Trp Ala Asn Phe Ala Lys Tyr Gly Asn Pro Asn Glu Thr Gln  
Asn Asn Ser Thr Ser Trp Pro Val Phe Lys Ser Thr Glu Gln Lys  
Tyr Leu Thr Leu Asn Thr Glu Ser Thr Arg Ile Met Thr Lys Leu  
Arg Ala Gln Gln Cys Arg Phe Trp Thr Ser Phe Phe Pro Lys Val

~~SEQ ID NO:203~~  
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~~SEQ ID NO:204~~ SEQ ID NO:201

Glu Asp Asp Ile Ile Ile Ala Thr Lys Asn Gly Lys Val Arg Gly  
Met Asn Leu Thr Val Phe Gly Gly Thr Val Thr Ala Phe Leu Gly  
Ile Pro Tyr Ala Gln Pro Pro Leu Gly Arg Leu Arg Phe Lys Lys  
Pro Gln Ser Leu Thr Lys Trp Ser Asp Ile Trp Asn Ala Thr Lys  
Tyr Ala Asn Ser Cys Cys Gln Asn Ile Asp Gln Ser Phe Pro Gly  
Phe Phe Gly Ser Glu Met Trp Asn Pro Asn Thr Asp Leu Ser Glu  
Asp Cys Leu Tyr Leu Asn Val Trp Ile Pro Ala Pro Lys Pro Lys  
Asn Ala Thr Val Leu Ile Trp Ile Tyr Gly Gly Gly Phe Gln Thr  
Gly Thr Ser Ser Leu His Val Tyr Asp Gly Lys Phe Leu Ala Arg  
Val Glu Arg Val Ile Val Val Ser Met Asn Tyr Arg Val Gly Ala  
Leu Gly Phe Leu Ala Leu Pro Gly Asn Pro Glu Ala Pro Gly Asn  
Met Gly Leu Phe Asp Gln Gln Leu Ala Leu Gln Trp Val Gln Lys  
Asn Ile Ala Ala Phe Gly Gly Asn Pro Lys Ser Val Thr Leu Phe  
Gly Glu Ser Ala Gly Ala Ala Ser Val Ser Leu His Leu Leu Ser  
Pro Gly Ser His Ser Leu Phe Thr Arg Ala Ile Leu Gln Ser Gly  
Ser Xaa Asn Ala Pro Trp Ala Val Thr Ser Leu Tyr Glu Ala Arg  
Asn Arg Thr Leu Asn Leu Ala Lys Leu Thr Gly Cys Ser Arg Glu

Asn Glu Thr Glu Ile Ile Lys Cys Leu Arg Asn Lys Asp Pro Gln  
Glu Ile Leu Leu Asn Glu Ala Phe Val Val Pro Tyr Gly Thr Asn  
Leu Ser Val Asn Phe Gly Pro Thr Val Asp Gly Asp Phe Leu Thr  
Asp Met Pro Asp Ile Leu Leu Glu Leu Gly Gln Phe Lys Lys Thr  
Gln Ile Leu Val Gly Val Asn Lys Asp Glu Gly Thr Ala Phe Leu  
Ala Tyr Gly Ala Pro Gly Phe Ser Lys Asp Asn Asn Ser Ile Ile  
Thr Arg Lys Glu Phe Gln Glu Gly Leu Lys Ile Phe Phe Pro Gly  
Val Ser Glu Phe Gly Lys Glu Ser Ile Leu Phe His Tyr Thr Asp  
Trp Val Asp Asp Gln Arg Pro Glu Asn Tyr Arg Glu Ala Leu Gly  
Asp Val Val Gly Asp Tyr Asn Phe Ile Cys Pro Ala Leu Glu Phe  
Thr Lys Lys Phe Ser Glu Trp Gly Asn Asn Ala Phe Phe Tyr Tyr  
Phe Glu His Arg Ser Ser Lys Leu Pro Trp Pro Glu Trp Met Gly  
Val Met His Gly Tyr Glu Ile Glu Phe Val Phe Gly Leu Pro Leu  
Glu Arg Arg Asp Asn Tyr Thr Lys Ala Glu Glu Ile Leu Ser Arg  
Ser Ile Val Lys Arg Trp Ala Asn Phe Ala Lys Tyr Gly Asn Pro  
Asn Glu Thr Gln Asn Asn Ser Thr Ser Trp Pro Val Phe Lys Ser  
Thr Glu Gln Lys Tyr Leu Thr Leu Asn Thr Glu Ser Thr Arg Ile  
Met Thr Lys Leu Arg Ala Gln Gln Cys Arg Phe Trp Thr Ser Phe  
Phe Pro Lys Val Leu